

**Commonwealth of Kentucky**  
**Natural Resources and Environmental Protection Cabinet**  
**Department for Environmental Protection**  
**Division for Air Quality**  
**803 Schenkel Lane**  
**Frankfort, Kentucky 40601**  
**(502) 573-3382**

## **AIR QUALITY PERMIT**

**Permittee Name:** Bluegrass Generation Company, L.L.C.  
**Mailing Address:** 1000 Louisiana, Suite 5800, Houston, Texas 77002-5050

**Source Name:** Bluegrass Generation Company, L.L.C.  
**Mailing Address:** 3200 West Highway 146, LaGrange, Kentucky 40031

**Source Location:** 3095 Commerce Parkway, LaGrange, Kentucky 40031

**Permit Type:** Federally-Enforceable  
**Review Type:** Synthetic Minor, Title V

**Permit Number:** V-00-052  
**Log Number:** 51500

**AFS Plant ID#:** 21-185-00036  
**SIC Code:** 4911  
**ORIS Code:** 55164

**Region:** North Central  
**County:** Oldham

**Application**  
**Complete date:** June 13, 2000  
**Issuance Date:** **June 5, 2001**  
**Expiration Date:** **June 5, 2006**

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**John E. Hornback, Director**  
**Division for Air Quality**

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## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application, which was determined to be complete on June 13, 2000, the Kentucky Division for Air Quality (the Division) hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes (KRS) Chapter 224 and regulations promulgated pursuant thereto, and shall become the final permit unless the U.S. Environmental Protection Agency (EPA) files an objection pursuant to Kentucky Administrative Regulation (KAR) 401 KAR 50:035, Section 21(3).

The permittee shall not construct, reconstruct, or modify any emission units without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, *Permits*.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Natural Resources and Environmental Protection Cabinet (the Cabinet) or any other federal, state, or local agency.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emissions Unit: 01(01), 02(01) and 03(01) - Natural Gas-Fired, Simple Cycle Combustion Turbine**

#### **Description:**

Construction commenced: October, 2000 – Units 01 and 02

Expected: June, 2001– Unit 03

2076 MMBTU/hr rated heat input capacity, 208 MW rated capacity output (each)

Siemens-Westinghouse 501FD gas-fired simple cycle combustion turbine

Control Equipment: Hot Selective Catalytic Reduction (SCR)

#### **The following requirements are applicable to each combustion turbine**

#### **Applicable Regulations:**

Regulation 401 KAR 60:005, 40 Code of Federal Regulation (CFR) Part 60 *Standards of Performance for New Stationary Sources*, incorporating by reference 40 CFR 60, Subpart GG, *Standards of Performance for Stationary Gas Turbines*, for emission units with a heat input at peak load equal to or greater than 10 MMBTU/hour for which construction commenced after October 3, 1977

#### **1. Operating Limitations:**

NA

#### **2. Emission Limitations: [See Section D for source-wide emission limitations]**

a) Pursuant to 40 CFR 60.332, the nitrogen oxides (NO<sub>x</sub>) emission level in the exhaust gas shall not exceed 111 part per million (ppm) by volume at 15 percent oxygen, on a dry basis, and based on a three-hour rolling average. The ppm level of NO<sub>x</sub> (at ISO standard conditions) shall be demonstrated by stack test, and measured with use of a continuous emissions monitor (CEM).

b) Pursuant to 40 CFR 60.333, the permittee shall either not discharge any gases into the atmosphere which contain sulfur dioxide (SO<sub>2</sub>) in excess of 0.015 percent by volume at 15 percent oxygen, on a dry basis, or not burn any fuel which contains sulfur in excess of 0.8 percent by weight.

c) Carbon Monoxide (CO) emissions shall not exceed 50 ppm in any three-hour average except during start-up and shutdown periods. The start-up and shutdown emission calculation should be based on the vendor recommended emission rate. The CO emissions from the source during start-up and shutdown shall be included in the total emission cap of 245 tons per year as specified in Section D of this permit.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**3. Testing Requirements:**

- a) Pursuant to 40 CFR 60.335 (b), in conducting performance tests required by 40 CFR 60.8, the owner or operator shall use the test methods in Appendix A of Part 60 or other methods or procedures as specified in 40 CFR 60.335, except as provided for in 40 CFR 60.8(b).
- b) The owner or operator shall determine compliance with the nitrogen oxides standard in accordance with 40 CFR 60.335(c)(1), (2), and (3) which include use of Method 20 to determine the NO<sub>x</sub> and oxygen concentrations.
- c) Pursuant to Regulation 401 KAR 50:045, the owner or operator shall conduct an initial performance test for nitrogen oxides. The initial NO<sub>x</sub> performance test shall be performed in accordance with General Condition G (d)(5).
- d) Pursuant to KAR 50:045, the owner or operator shall conduct an initial performance test for fuel sulfur content in accordance with the custom fuel monitoring schedule.
- d) See General Condition G (d)(6) of this permit.

**4. Specific Monitoring Requirements:**

- a) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), and 40 CFR 75, the permittee shall install, calibrate, maintain, and operate the NO<sub>x</sub> CEM. The NO<sub>x</sub> CEM shall be used as the indicator of continuous compliance with the NO<sub>x</sub> emission standard. Excluding the start-up and shutdown periods, if any 3-hour rolling average exceeds the NO<sub>x</sub> emission limitation, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and complete necessary control device/process/CEM repairs or take corrective action as soon as practicable.
- b) The nitrogen oxides CEM shall be used in lieu of the water to fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1). The calibration of the water to fuel monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO<sub>x</sub> CEM. The CEM emission rates for NO<sub>x</sub> shall be corrected to ISO conditions only for the stack test demonstrating compliance with the NO<sub>x</sub> standard established in Subsection 2.
- c) Additionally, a CEM system shall be installed, calibrated, maintained, and operated for measuring oxygen levels.
- d) Pursuant to 40 CFR 75.11 Section (e)(1), the permittee shall determine Sulfur Dioxide (SO<sub>2</sub>) emissions by using the heat input calculated using a certified flow monitoring system in conjunction with the default SO<sub>2</sub> emission rate for pipeline natural gas from Section 2.3.3 of Appendix D and equation F-23 in appendix F.
- e) The owner or operator shall comply with all the monitoring requirements of 40 CFR 75.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **4. Specific Monitoring Requirements continued:**

f) Pursuant to 40 CFR 60.334(b), the owner or operator shall follow the custom fuel- monitoring plan outlined below:

1) Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved (ASTM) reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).

2) Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.

3) If after the monitoring required in item f (2) above, or herein, the sulfur content of the fuel shows little variability and, calculated as SO<sub>2</sub>, represents consistent compliance with the SO<sub>2</sub> emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.

4) Should any sulfur analysis, as required in items f (2) and f (3) above, indicate non-compliance with 40 CFR 60.333, the owner or operator shall notify the Division of such excess emissions and the custom schedule shall be re-examined by the U.S. EPA. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

5) If there is a change in fuel supply, the owner or operator must notify the Division of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

g) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for CO, the permittee shall use a CEM.

h) Pursuant to 40 CFR 60.13(b), the continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting the initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device(s).

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (DONTINUED)****4. Specific Monitoring Requirements continued:**

i) Pursuant to 40 CFR 60.13(c), the owner or operator of an emissions unit shall conduct a performance evaluation of the continuous monitoring system during any performance test required under 40 CFR 60.8 or within 30 days thereafter, in accordance with the applicable performance specification in 40 CFR 60 Appendix B, for NO<sub>x</sub>. Performance evaluations of CEM systems shall be conducted at other times as required.

j) Pursuant to 40 CFR 60.13(d)(1), the owner(s) and operator(s) of all CEM systems shall perform appropriate calibration checks and zero and span adjustments at least once daily, as specified in a written procedure, in accordance with requirements of 40 CFR 60.13(d)(1).

k) Pursuant to 40 CFR 60.13(e), except during system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute period.

l) Pursuant to 40 CFR 60.13(f), all continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the emissions unit are obtained. Additional procedures for location of continuous monitoring systems, as contained in the applicable Performance Specifications of 40 CFR 60 Appendix B, shall be used.

m) Pursuant to 40 CFR 60.13(h), the owner(s) or operator(s) shall reduce all data to one-hour averages for the continuous monitoring systems. The one-hour averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g., ppm pollutant and percent oxygen). All excess emissions shall be converted into units of the applicable standard using the applicable conversion procedures specified in Subpart GG of 40 CFR 60. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used to specify the applicable emission standard.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **5. Specific Record Keeping Requirements:**

- a) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the gas turbine shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by Regulation 401 KAR 59:005 recorded in a permanent form suitable for inspection.
- b) Records, including those documenting the results of each compliance test and all other records and reports required by this permit, shall be maintained for five (5) years pursuant to Regulation 401 KAR 50:035.
- c) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the unit shall maintain the records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the emissions unit; any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.
- d) The permittee shall maintain a log of all sulfur content measurements. Records of sample analysis and fuel supply pertinent to the custom fuel sulfur monitoring schedule shall be retained for a period of five years, and shall be available for inspection by personnel of federal, state, and local air pollution control agencies.

### **6. Specific Reporting Requirements:**

- a) Pursuant to Regulation 401 KAR 59:005, Section 3, minimum data requirements, which follow, shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit a written report of excess emissions (as defined in applicable sections) to the Division for every calendar quarter. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:
  - 1) The magnitude of the excess emissions computed in accordance with the Regulation 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
  - 2) Specific identification of each period of excess emission that occurs during start-ups, shutdowns, and malfunctions of the emission unit. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.



## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **6. Specific Reporting Requirements continued:**

3) The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

4) When no excess emissions have occurred or the continuous monitoring system(s) has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b) Pursuant to 40 CFR 60.334 (c), for the reports regarding NO<sub>x</sub> excess emissions, in lieu of those based on the water to fuel ratio monitoring, periods of excess emissions are defined as follows:

For NO<sub>x</sub>: any three-hour period during which the average NO<sub>x</sub> emission level as measured by the continuous monitoring system, rises above the emission limitation specified in Subsection 2, with which the permittee demonstrates compliance by the performance test required in 40 CFR 60.8.

c) Pursuant to 40 CFR 60.334(c), each report of NO<sub>x</sub> excess emission shall include the average NO<sub>x</sub> emission level in lieu of water to fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and any graphs or figures developed.

d) Pursuant to Regulation 401 KAR 50:035 Section 7(1)(c), *Monitoring Requirement with CEM for Nitrogen Oxides*, excess emissions are defined by any three (3) hour period during which the average emissions (arithmetic average) exceed the applicable NO<sub>x</sub> emission standard. These periods of excess emissions shall be reported quarterly to Division's Frankfort Regional Office.

e) Pursuant to 40 CFR 60.334(c), excess emissions of SO<sub>2</sub> are defined by any daily period (or as otherwise required in the custom fuel sulfur monitoring plan) during which the sulfur content of the fuel being fired in the gas turbine(s) exceeds the limitations set forth in Subsection 2, *Emission Limitations*. These periods of excess emissions shall be reported quarterly to the Division's for Frankfort Regional Office.

### **7. Specific Control Equipment Operating Conditions:**

The permittee has the option to apply or not to apply High Temperature Selective Catalytic Reduction (SCR) for NO<sub>x</sub> control in its operation after initial demonstration of compliance with emission limitation set forth in Section B (2). The NO<sub>x</sub> emissions limitations shall not exceed the permit limit when the SCR system is not in use. The total emission cap for the facility shall not exceed the limit established in Section D

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 04 (--) Natural Gas Heater**

**Description:**

Construction commenced: expected June 2001

5 MMBTU/hour natural gas heater

**Applicable Regulations:**

None

**1. Operating Limitations:**

None

**2. Emission Limitations:**

See Section D for source-wide emission limitations.

**3. Testing Requirements:**

None

**4. Specific Monitoring Requirements:**

The permittee shall monitor the monthly fuel usage, the average monthly fuel heat content, and the monthly hours of operation.

**5. Specific Recordkeeping Requirements:**

The permittee shall maintain records of monthly fuel used, monthly average fuel heat content, and monthly hours of operation of the natural gas heater.

**6. Specific Reporting Requirements:**

None

**7. Specific Control Equipment Operating Conditions:**

None

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant, the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	<u>Description</u>	<u>Generally Applicable Regulation</u>
1.	Emergency electric generator 250 kW, diesel-fired	NA
2.	Emergency fire water pump 310 hp, diesel-fired	NA
3.	(2) -30,000 Gallons Tank 19% Aqueous ammonia solution	NA

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS**

1. Emissions of NO<sub>x</sub> and CO, as measured by methods referenced in Regulation 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
2. Compliance with any annual emissions, operating, or process limitations imposed pursuant to Regulation 401 KAR 50:035, Section 7(1)(a), and contained in this permit, shall be based on emissions and operation for any consecutive twelve (12) month period.
3. Gas Combustion Turbines, electric generator and fire water pump (emission units 01- 03):
  - a) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(a), and to preclude Regulation 401 KAR 51:017, potential emissions of CO from the combustion turbines, electric generators and the natural gas heater (source-wide) - emission points 01 through 03- shall not exceed 245 tons per year, during any consecutive twelve (12) month period. The permittee shall assure compliance with these limitations by use of CEM systems for the combustion turbines and by performing calculations for the natural gas heaters using emission factors provided in the permit application. The total emissions of NO<sub>x</sub> from the combustion turbines, electric generators and the fire water pump (source-wide) and natural gas heater - emission units 01 through 03 - shall not exceed 95 tons per year, during any consecutive twelve (12) month period.
  - b) Emissions from the turbines shall be determined with CEMs. Emissions from the gas heater may be calculated with the following equations: NO<sub>x</sub> emissions = (emission factor from manufacturer = 0.12 lb/MMBTU)\*(heat input = 4.92 MMBTU/hr)\*(hours operated per month)\*(1 ton/2000lbs) CO emissions = (emission factor from manufacturer = 0.05 lb/MMBTU)\*(heat input = 4.92 MMBTU/hr)\*(hours operated per month)\*(1 ton/2000lbs)
  - c) The permittee shall calculate and record the tons of NO<sub>x</sub> and CO emissions emitted from the source on a monthly basis. Additionally, the permittee shall also calculate and record the tons of NO<sub>x</sub> and CO emissions emitted from the source during any consecutive twelve (12) months.
  - d) Compliance with the annual NO<sub>x</sub> emission limitation shall be determined by summing the emissions from the turbines, electric generator, fire water pumps, and the gas heater for any consecutive twelve (12) months.
  - e) Compliance with the annual CO emission limitation shall be determined by summing the emissions from the turbines, electric generator, fire water pumps, and the gas heater for any consecutive twelve (12) months.
  - f) Records of tons of NO<sub>x</sub> and CO emissions emitted from the source in any consecutive twelve (12) month period shall be reported quarterly to the Division's Frankfort Regional Office.

## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

1. Pursuant to Regulation 401 KAR 50:055, Section 2(5), at all times, including periods of start-up, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any emissions unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

The following requirements become effective after commencement of operation:

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, and place as defined in this permit, and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality, in accordance with 401 KAR 50:035, *Permits*, Section 7(1)(d)2, and Section 7(2)(c).
3. In accordance with the requirements of Regulation 401 KAR 50:035, *Permits*, Section 7(2)(c) the permittee shall allow the Cabinet or its authorized representatives to perform the following:
  - a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where air quality related records are kept;
  - b. Have access to and copy, at reasonable times, any records required by the permit:
    - i. During normal office hours, and
    - ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
  - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
    - i. During all hours of operation at the source,
    - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii. During an emergency; and
  - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
    - i. During all hours of operation at the source,
    - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii. During an emergency.

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Division's Frankfort Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the six-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The reports are due within 30 days after the end of each six-month reporting period that commences on the initial issuance date of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the Division's regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, *General Provisions*, Section 3(3). All reports shall be certified by a responsible official pursuant to Section 6(1) of 401 KAR 50:035, *Permits*. All deviations from permit requirements shall be clearly identified in the reports.

6.
  - a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division's Frankfort Regional Office concerning start-ups, shutdowns, or malfunctions as follows:
    - i. When emissions during any planned shutdowns and ensuing start-ups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
    - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing start-ups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be followed by written notice upon request.
  - b. In accordance with the provisions of 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall promptly report deviations from permit requirements including those attributed to upset conditions to the Division for Air Quality's Frankfort Regional Office. Prompt reporting shall be defined as quarterly for any deviation related to emission standards [other than emission exceedances covered by condition 6(a) above] and semi-annually for all other deviations from the permit requirements, if not otherwise specified in the permit.

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

7. Pursuant to 401 KAR 50:035, *Permits*, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Frankfort Regional Office and the U.S. EPA. This shall be done on an annual basis on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office and in accordance with the following requirements:
- a. Identification of each term or condition of the permit that is the basis of the certification;
  - b. The compliance status regarding each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent; and
  - d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - f. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. **Annual compliance certifications shall be mailed to the following addresses:**

Division for Air Quality  
Central Files  
803 Schenkel Lane  
Frankfort, Kentucky 40601

U.S. EPA Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth St.  
Atlanta, GA 30303-8960

Division for Air Quality  
Frankfort Regional Office  
643 Teton Trail, Suite B  
Frankfort, Kentucky 40601

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the Kentucky Environmental Emissions Inventory Systems (KYEIS) emission report is mailed to the permittee.
9. Pursuant to Section VII.3 of the policy manual of the Division as referenced by 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.
10. Permittee must establish a program for handling, controlling, and using ammonia and shall submit it to the Division for approval. The submittal must be made at least ninety (90) days prior to bringing ammonia to the site.



**SECTION G - GENERAL CONDITIONS****(a) General Compliance Requirements**

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, *Permits*, Section 7(3)(d), and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act), and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - d. If any additional applicable requirements of the Acid Rain Program become applicable to the source.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Re-openings shall be made as expeditiously as practicable. Re-openings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, *Permits*, Section 7(2)(b)3e and 401 KAR 50:035, *Permits*, Section 7(3)(j)]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, *Permits*, Section 7(3)(k)]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, *Permits*, Section 7(3)(e)]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, *Permits*, Section 7(3)(h)]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, *Permits*, Section 8(3)(b)]
11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, *Permits*, Section 7 (3)(g)]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of the U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, *Permits*, Section 7(2)(b)5]
14. Nothing in this permit shall alter or affect the authority of the U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, *Permits*, Section 8(3)(a)]
15. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, *Permits*, compliance by the emission units listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.
16. Emission limitations listed in this permit shall apply at all times except during periods of start-up, shutdown, or malfunctions in accordance with Regulation 401 KAR 50:055, provided the permittee complies with the requirements of Regulation 401 KAR 50:055.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

17. Previously issued construction and operating permit (F-99-028) is hereby subsumed into this permit

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 50:035, *Permits*, Section 12]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Frankfort Regional Office in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
  - a. The date when construction commenced.
  - b. The date of start-up of the emission units listed in this permit.
  - c. The date when the maximum production rate specified in the permit application was achieved.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

3. Pursuant to State Regulation 401 KAR 50:035, *Permits*, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those emission units for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the Division upon a satisfactory request showing that an extension is justified.
4. Operation of the emission units for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the emission units listed herein. However, within sixty (60) days after achieving the maximum production rate at which the turbines will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (tests) at various loads on the turbines for nitrogen oxides in accordance with Regulation 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Conditions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance tests.
6. Pursuant to Section VII 2(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) showing the proposed test conditions and number of tests, to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
2. The source shall comply with all requirements and conditions of the Title IV Acid Rain Permit (A-99-002 Revision 1) and the Phase II permit application (including the Phase II NO<sub>x</sub> compliance plan and averaging plan, if applicable) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.
3. See Section J for the Acid Rain Permit- A-99-002 (Revision 1)

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
  - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, *Permits*, Section 7(1)(e), and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.
2. Emergency conditions listed in General Conditions (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, *Permits*, Section 9(3)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall:
  - a. Submit a Risk Management Plan (RMP) and comply with the Risk Management Program. The permittee shall submit the RMP on diskette to:

RMP Reporting Center  
P.O. Box 3346  
Merrifield, VA 22116-3346.
  - b. Submit additional relevant information if requested by the Division or the U.S. EPA.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

**SECTION H - ALTERNATE OPERATING SCENARIOS**

None

**SECTION I - COMPLIANCE SCHEDULE**

None



**SECTION J- ACID RAIN PERMIT**

**Commonwealth of Kentucky**  
**Natural Resources and Environmental Protection Cabinet**  
**Department for Environmental Protection**  
**Division for Air Quality**  
**803 Schenkel Lane**  
**Frankfort, Kentucky 40601**  
**(502) 573-3382**

**PHASE II ACID RAIN PERMIT**

<b>Plant Name:</b>	Bluegrass Generation Company, LLC	
<b>Plant Location:</b>	3200 West Highway 146, La Grange, Kentucky	
<b>Owner:</b>	Bluegrass Generation Company, LLC	
<b>Mailing Address:</b>	1000 Louisiana, Suite 5800, Houston, Texas 77002-5050	
<b>Region:</b>	North Central	<b>County:</b> Oldham
<b>Effective Date</b>	<b>From:</b> January 1, 2001	<b>To:</b> December 31, 2005

**ACID RAIN PERMIT CONTENTS**

- 1) Statement of Basis
- 2) SO<sub>2</sub> allowances allocated under this permit and NO<sub>x</sub> requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application.
- 5) Summary of Actions

**1. Statement of Basis:**

**Statutory and Regulatory Authorities:** In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality issues this permit pursuant to Regulations 401 KAR 50:035, Permits, 401 KAR 50:072, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

**PERMIT (Conditions)**

<b>Plant Name:</b> Bluegrass Generation Company, LLC
<b>Affected Unit:</b> 1 (GTG – 101)

**2. SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for the affected unit:**

SO <sub>2</sub> Allowances	Year				
	2001	2002	2003	2004	2005
<b>Tables 2, 3 or 4 of 40 CFR Part 73</b>	0*	0*	0*	0*	0*

<b>NO<sub>x</sub> Requirements</b>	
<b>NO<sub>x</sub> Limits</b>	N/A**

\* For newly constructed units there are no SO<sub>2</sub> allowance allocations per USEPA Acid Rain Program.

\*\* This unit currently does not have applicable NO<sub>x</sub> limits set by 40 CFR, part 76.

**PERMIT (Conditions)**

<b>Plant Name:</b> Bluegrass Generation Company, LLC
<b>Affected Unit:</b> 2 (GTG – 201)

**➤ SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for the affected unit:**

SO <sub>2</sub> Allowances	Year				
	2001	2002	2003	2004	2005
<b>Tables 2, 3 or 4 of 40 CFR Part 73</b>	0*	0*	0*	0*	0*

<b>NO<sub>x</sub> Requirements</b>	
<b>NO<sub>x</sub> Limits</b>	N/A**

\* For newly constructed units there are no SO<sub>2</sub> allowance allocations per USEPA Acid Rain Program.

\*\* This unit currently does not have applicable NO<sub>x</sub> limits set by 40 CFR, part 76.

**PERMIT (Conditions)**

<b>Plant Name:</b> Bluegrass Generation Company, LLC
<b>Affected Unit:</b> 3 (GTG – 301)

➤ **SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for the affected unit:**

SO <sub>2</sub> Allowances	Year				
	2001	2002	2003	2004	2005
<b>Tables 2, 3 or 4 of 40 CFR Part 73</b>	0*	0*	0*	0*	0*

<b>NO<sub>x</sub> Requirements</b>	
<b>NO<sub>x</sub> Limits</b>	N/A**

\* For newly constructed units there are no SO<sub>2</sub> allowance allocations per USEPA Acid Rain Program.

\*\* This unit currently does not have applicable NO<sub>x</sub> limits set by 40 CFR, part 76.

**PERMIT (Conditions)**

**3. Comments, Notes, and Justifications:**

The three (3) combustion turbines, units 1, 2 and 3, will be constructed after the SO<sub>2</sub> allocation date; therefore these units will have no SO<sub>2</sub> allowances allocated by U.S. EPA and must obtain offsets.

The three (3) combustion turbines, units 1, 2 and 3, do not have applicable NO<sub>x</sub> limits set by 40 CFR part 76.

**4. Permit Application:** Attached

The Phase II Permit Application is a part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application.

**5. Summary of Actions:**

**Previous Action:**

1. Draft Phase II Permit (# A-99-002 Draft (Revision 1)) was advertised for public comment.

**Present Action:**

1. Final Phase II Permit (# V-00-052) has been issued with SO<sub>2</sub> allowance allocation and NO<sub>x</sub> emission standards.